

Ultrasound services in our rainbow nation – many shades of grey?



Like most things in South Africa, the fields of O&G ultrasound in general, and fetal medicine in particular, are characterised by a typical mix of First- and Third-World services. Although centres of excellence exist in both the private and public health care sectors, the main feature of O&G ultrasound in this country is a surprising inequity in access to high-quality services. This is unfortunately true for both the public and private sectors, albeit for different reasons.

Lack of good equipment is no longer responsible for this, because even in public health care facilities major progress has been made in the past decade, and many large and small O&G departments now have ultrasound equipment of reasonable quality. In the private sector, on the other hand, virtually all practices provide ultrasound examinations and an increasing proportion of obstetricians currently have equipment at the top end of the performance spectrum.

Barriers to ultrasound services in the public sector are mainly related to lack of human resources. Posts in ultrasound units are filled with well-trained staff, but posts are few and often concentrated in the main urban centres, significantly limiting accessibility for patients living further away. Innovative approaches can address this geographical inequity, however, as shown in the Western Cape rural areas of the West Coast, Boland, Overberg and Winelands districts, where travelling qualified sonographers with portable equipment visit remote areas with a frequency determined by the number of obstetric cases in that region. They offer high-quality assessments to large numbers of patients, and this has resulted in a significant increase in the number of appropriate referrals to the regional tertiary centre.

An additional barrier to equitable access is the potential overuse of ultrasound examinations for dubious indications, and strict referral protocols therefore need to be in place to ensure that maximal benefit is obtained from the scarce resource of skilled ultrasound staff. In areas where formal ultrasound services are lacking, most O&G scanning in the public sector is unfortunately performed at random by practitioners (doctors, radiographers or nurses) who have had no (adequate) training in ultrasound and whose skills are questionable. One way to improve on this is to identify key individuals with an interest in and potential for ultrasound scanning in every region rather than to allow

any untrained staff member to perform examinations that may lead to false or missed diagnoses. Secondary and tertiary centres should get actively involved in outreach programmes to identify and train such individuals in a stepwise fashion. Training can initially be aimed primarily at a basic obstetric evaluation and the assessment of early pregnancy complications, since this is the greatest need, but can potentially be expanded to the level of a full fetal anatomical survey.

The situation is very different in the private sector, where virtually all women have access to O&G ultrasound, ultrasound examinations are often performed with almost every antenatal visit, and remuneration for several ultrasound examinations during pregnancy is generally not a problem. Several fetal medicine centres have been developed in recent years, but these are limited to metropolitan areas and a few large towns. They only have capacity to manage a small fraction of pregnant women in the private sector, and case selection is currently not based on indications so much as on issues such as obstetrician or patient preference. The majority of women in the private sector do not access these high-quality services, and the skill to perform an anatomical survey of the fetus is no longer implied in the Health Professions Council of South Africa (HPCSA) registration (O&G), since it has been excluded from the requirements to pass the FCOG exams in this country. Ultrasound skills are therefore highly variable among private obstetricians, and this is reflected in litigation cases for missed diagnoses of gross and overt fetal anomalies and low prenatal detection rates of even the most lethal chromosomal abnormalities in this country. Inadequate skill is an even bigger issue for general practitioners providing antenatal care, since they have had even less (or in some cases hardly any) exposure to O&G ultrasound during their training, and the same argument applies to many radiologists performing O&G examinations.

Another problem is discrepancy in the interpretation of the responsibilities of the operator as far as diagnostic accuracy is concerned: parents are under the impression that the development of their fetus is being assessed in detail, and insurers' remuneration is based on that premise, while professionals may assume that this level of expertise is not required of them. To clarify this issue, SASUOG has in the past defined the content of different levels of obstetric scanning to avoid misunderstandings

between patients and practitioners (www.sasuog.org.za). To improve transparency and to protect patients, multiple parties in South Africa (including the HPCSA, several medical schemes and professional indemnity societies) have expressed a clear interest in compulsory accreditation for O&G ultrasound performance.

As good and caring practitioners, it should be our ultimate goal to improve access for all pregnant women to the high-quality ultrasound investigations they expect. Although ultrasound is generally regarded as a (biologically) safe investigation, misdiagnoses (positive and negative) due to technical errors are responsible for most of the harm caused by O&G ultrasound examinations. For this reason we must continue to improve ultrasound skills levels in South Africa on a large scale. SASUOG will certainly continue its mission to provide training and education in this area, aiming to serve patients and practitioners alike, but formal accreditation courses will need to be developed to ensure that the demand for future compulsory accreditation

can be met without delay. Inclusion of the detailed fetal survey into the FCOG curriculum would ensure that obstetricians' ultrasound accreditation is implied in their HPCSA registration, and the incorporation of qualified sonographers in O&G ultrasound services, both in the public and private health care sectors, could increase the availability of high-quality ultrasound examinations considerably.

The superb image quality of modern ultrasound equipment will not be sufficient to improve diagnostic accuracy for the majority of women in our rainbow nation. It is only the skilled use of this technology that will ultimately be of benefit.

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